

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number  
WO 2005/090779 A1

(51) International Patent Classification<sup>7</sup>: F03D 1/06,  
11/00, F03B 3/12

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB,  
GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,  
KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,  
MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,  
PT, RO, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR,  
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:  
PCT/AU2005/000356

(22) International Filing Date: 16 March 2005 (16.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2004 901396 18 March 2004 (18.03.2004) AU  
2004 902736 18 March 2004 (18.03.2004) AU  
2004 902386 5 April 2004 (05.04.2004) AU  
2004 904453 10 August 2004 (10.08.2004) AU  
2004 907402 10 September 2004 (10.09.2004) AU

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

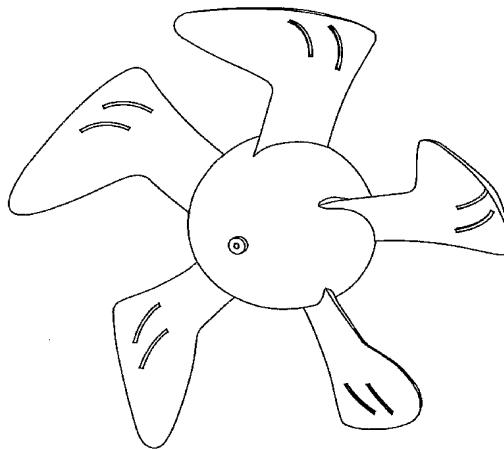
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Published:

- with international search report
- with amended claims and statement

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: TURBINE AND ROTOR THEREFOR



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(57) Abstract: A rotor that consists of a central hub or shaft and a plurality of boot shaped integral blade/vane units that combine a pronounced elongated vane tip extending substantially toward the incoming flow and also the direction of rotation forming a helix or pitch angle to the rotation axis centreline, preferably normal to and joined to the outer forward extremity of a slightly rearward tilted blade/wing section that is connected by its inner end to the central hub of shaft. The rotor revolves about the rotation axis by incoming gas/fluid flow as most of the fluid flow is encouraged to move substantially outward and rearward as it travels into and past the forwardly projecting vane tips located a substantial distance radially from the axis of rotation. This maximises the torque developed and transferred to the hub/shaft in a manner that does not greatly inhibit total through flow, because the combined gas/fluid flow exit area (or gaps between blades/vanes) is much greater than the maximum rotor diameter and subsequently the rotor inlet area, which has the effect of increasing the through flow velocity and thus overall performance. The blades may have slots within them.